WHAT IS CLAIMED IS:

1. A semiconductor laser device having on a single substrate a plurality of laser portions each oscillating laser light of a different wavelength, wherein said plurality of laser portions contain different types, respectively, of dopant.

2. The semiconductor laser device of claim 1, wherein said dopant is p type dopant.

3. The semiconductor laser device of claim 2, wherein one laser portion contains p type dopant of one of zinc, carbon or magnesium and another laser portion contains p type dopant of beryllium.

4. The semiconductor laser device of claim 1, wherein one laser portion is formed mainly of an AlGaAs based crystal and another laser portion is formed mainly of an AlGaInP based crystal.

5. A method of fabricating a semiconductor laser device, forming on a single substrate a plurality of laser portions each oscillating laser light of a different wavelength, wherein a laser portion previously formed and a laser portion subsequently formed are formed by different crystal growth methods, respectively.

6. The method of claim 5, wherein one of the crystal growth methods is metal-organic chemical vapor deposition.

7. The method of claim 6, wherein one of the crystal growth methods is molecular beam epitaxy.

8. The method of claim 7, the laser portion previously formed is grown by molecular beam epitaxy.

9. The method of claim 8, wherein the laser portion previously formed contains p type dopant having a diffusion coefficient smaller than that of p type dopant the laser portion subsequently formed.

10. The method of claim 9, wherein the laser portion previously formed contains p type dopant of beryllium.

11. The method of claim 10, wherein the laser portion subsequently formed contains p type dopant of one of zinc, carbon or magnesium.

12. The method of claim 5, wherein maximum and minimum temperatures of a substrate in growing a crystal for the laser portion previously formed is respectively higher than those of the substrate in growing a crystal for the laser portion subsequently formed.

13. The method of claim 12, wherein the minimum temperature of the substrate in growing the crystal for the laser portion previously formed is higher than the maximum temperature of the substrate in growing the crystal for the laser portion subsequently formed.

14. The method of claim 12, wherein for the laser portion previously formed a crystal is grown by metal-organic chemical vapor deposition.

15. The method of claim 12, wherein the laser portion previously formed contains p type dopant having a diffusion coefficient smaller than that of p type dopant in the laser portion subsequently formed.

16. The method of claim 12, wherein the laser portion previously formed contains p type dopant of one of zinc, carbon or magnesium.

17. The method of claim 16, wherein the laser portion subsequently formed contains p type dopant of beryllium.

18. The method of claim 5, wherein the laser portion previously formed is formed mainly of an AlGaAs based crystal and the laser portion subsequently formed is formed mainly of an AlGaInP based crystal.

19. The method of claim 5, wherein the laser portion previously formed is formed mainly of an AlGaInP based crystal and the laser portion subsequently formed is formed mainly of an AlGaAs based crystal.